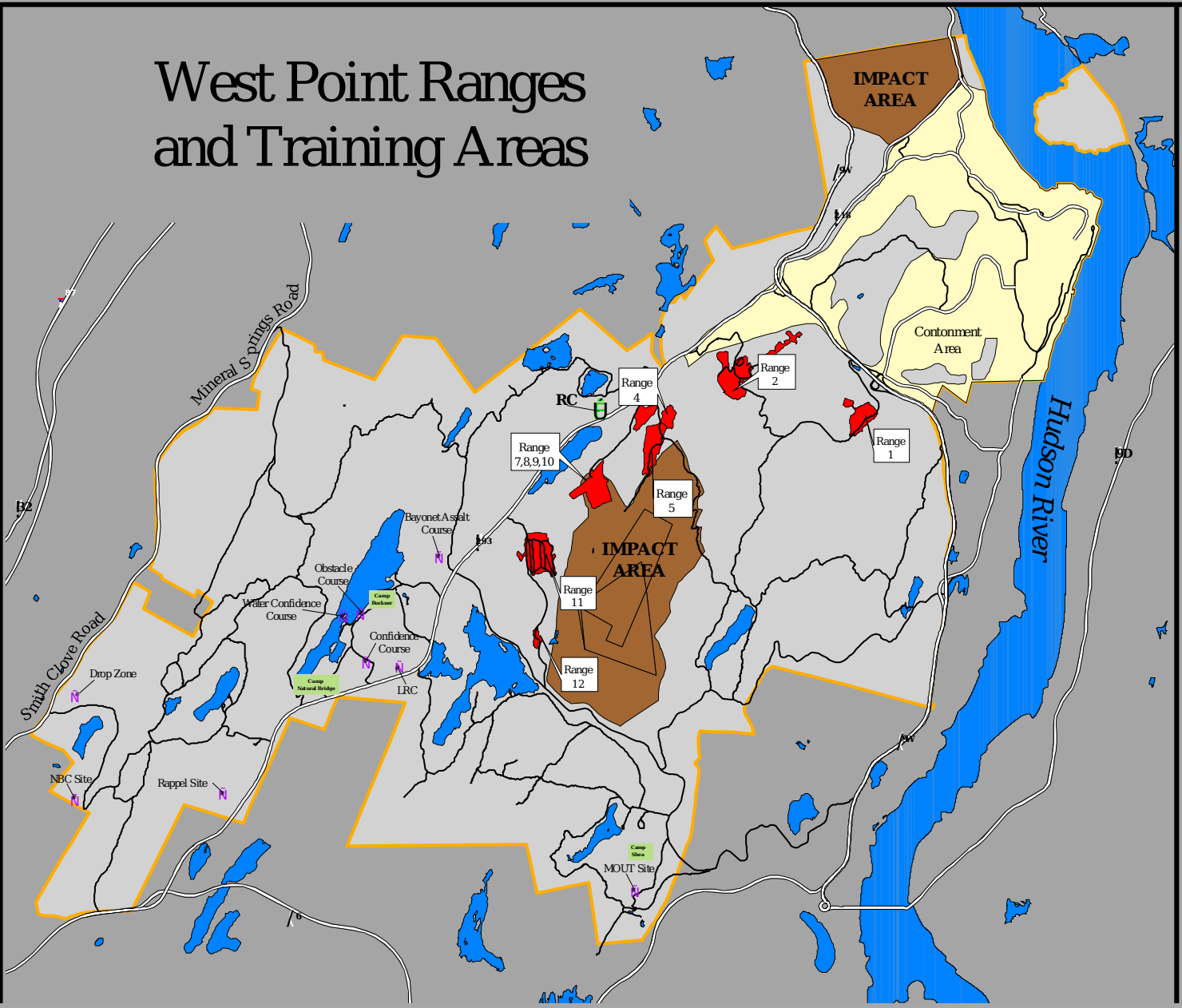
USMA

Ranges and Training Areas

LRAM on a Tight Budget

A Cooperative Effort

West Point Ranges and Training Areas



United States Military Academy
Training Information

Training Acreage: 11, 504

- 49 Training Areas
- 10 Live Fire Ranges

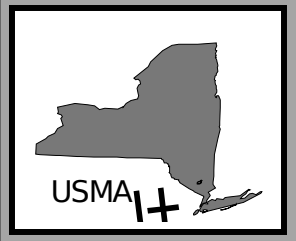
Contonment Acreage: 1,827

Impact Acreage: 1,324

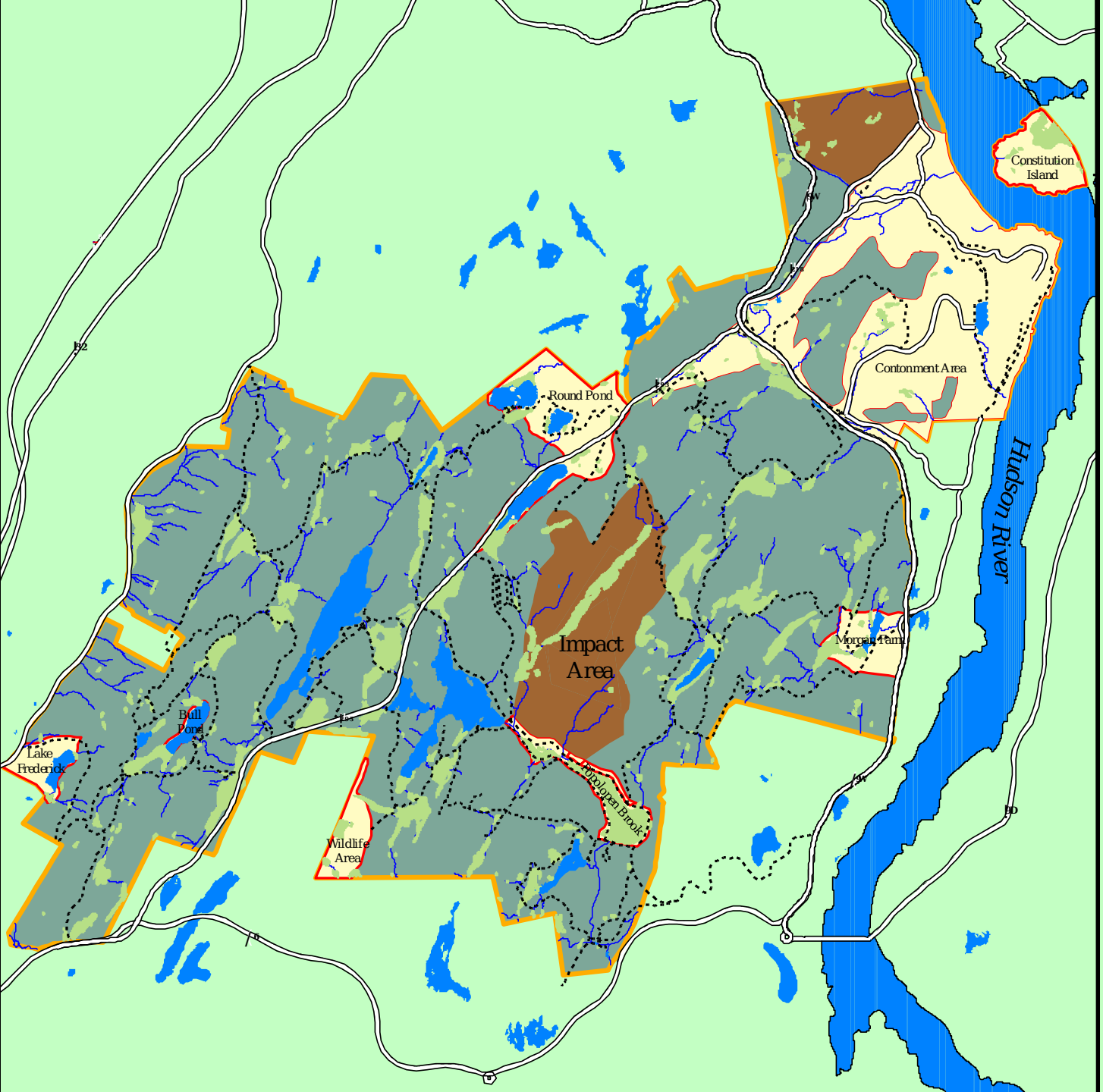
Training Exclusion Acreage: 1,431

Specialty Training Courses:

- Marne Confidence Course
- Bull Run Water Confidence Course
- Anzio Obstacle Course
- Bataan Bayonet Assault Course
- Lundy's Lane LRC
- Pine Ridge Rappel Site
- Verdun NBC Site
- Aachen MOUT Site
- Maddock Drop Zone



Created by: USMA ITAM Program, May 2001



United States Military Academy Environmental Information

Fauna Species

2 Federally Listed "Endangered" Species
1 Federally Listed "Threatened" Species

5 State Listed "Endangered" Species
4 State Listed "Threatened" Species
22 State Listed "Special Concerned" Species

Flora Species

11 State Listed "Endangered" Species
16 State Listed "Threatened" Species
4 State Listed "Rare" Species

1,081 Acres of Wetlands

Mountains?

Lots of Vertical Relief

ISSUES and Problems

Crows Nest Fire - July 1999

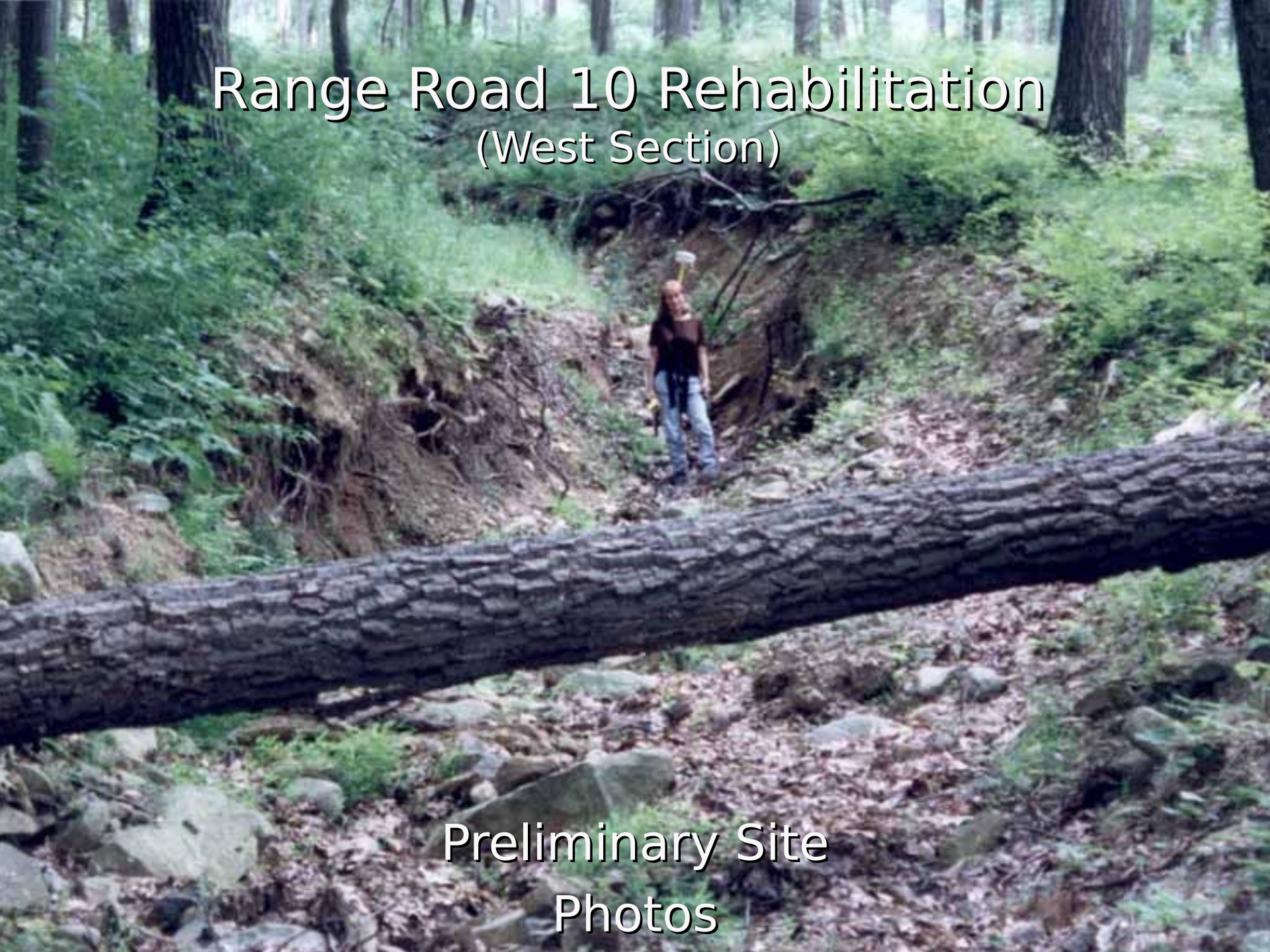
Recent Forest Fires - 2001

Firebreaks

Water Erosion

Range Road 10 Rehabilitation

(West Section)



Preliminary Site Photos

Training Related Damage

So what do we do??

emporary Quick Fixes

After rains

Washouts and Stream Damage

Who's the expert?

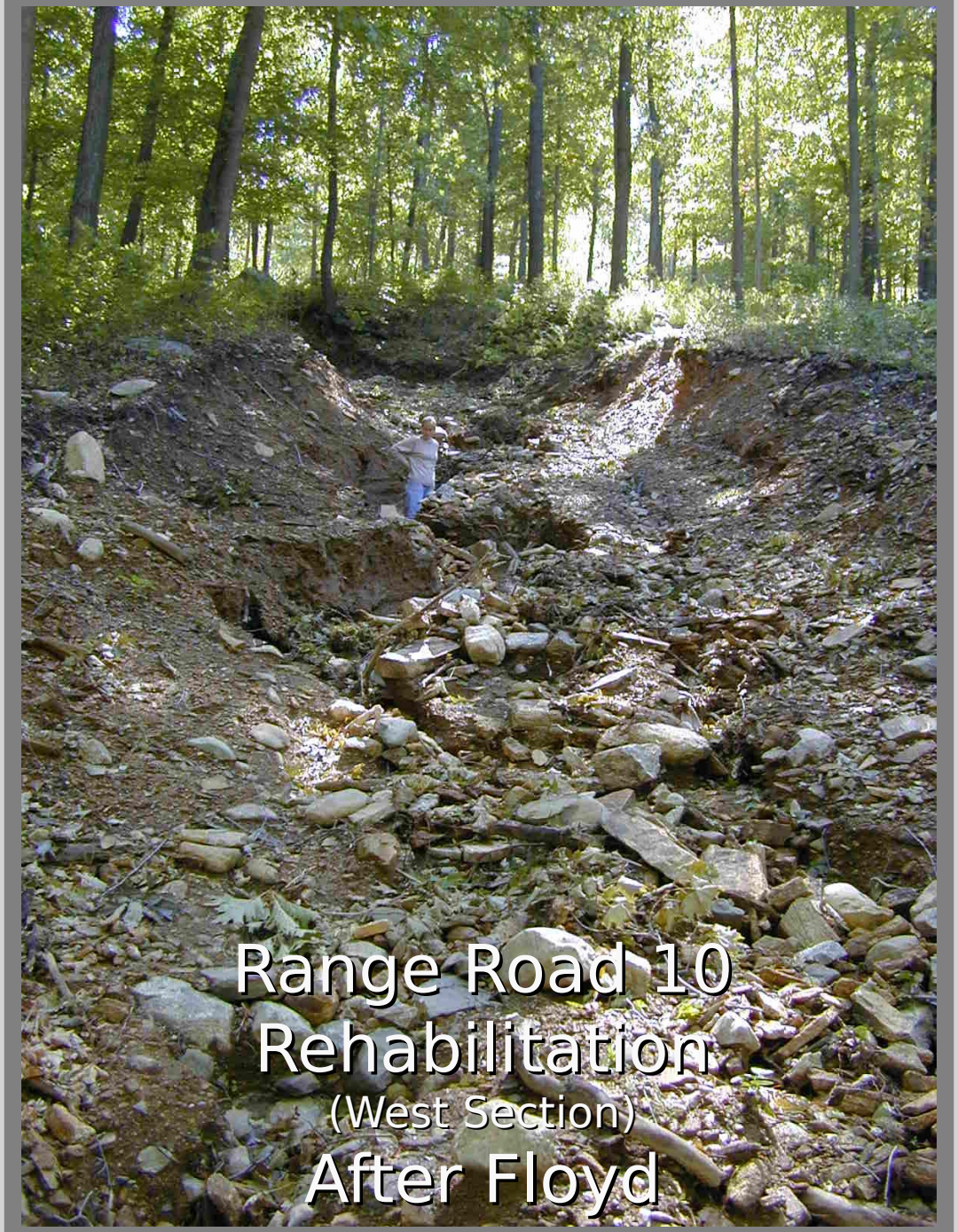
GABION Cages

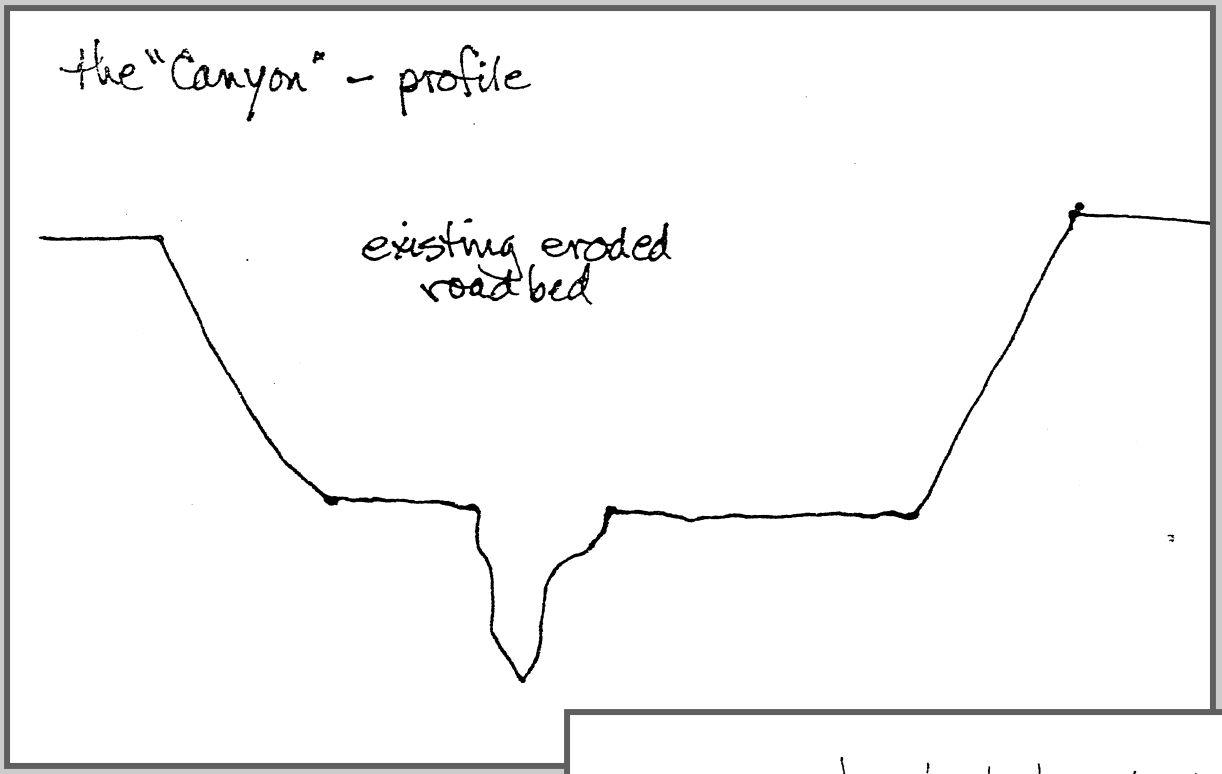
Install Water Diversions

Original Road Surface

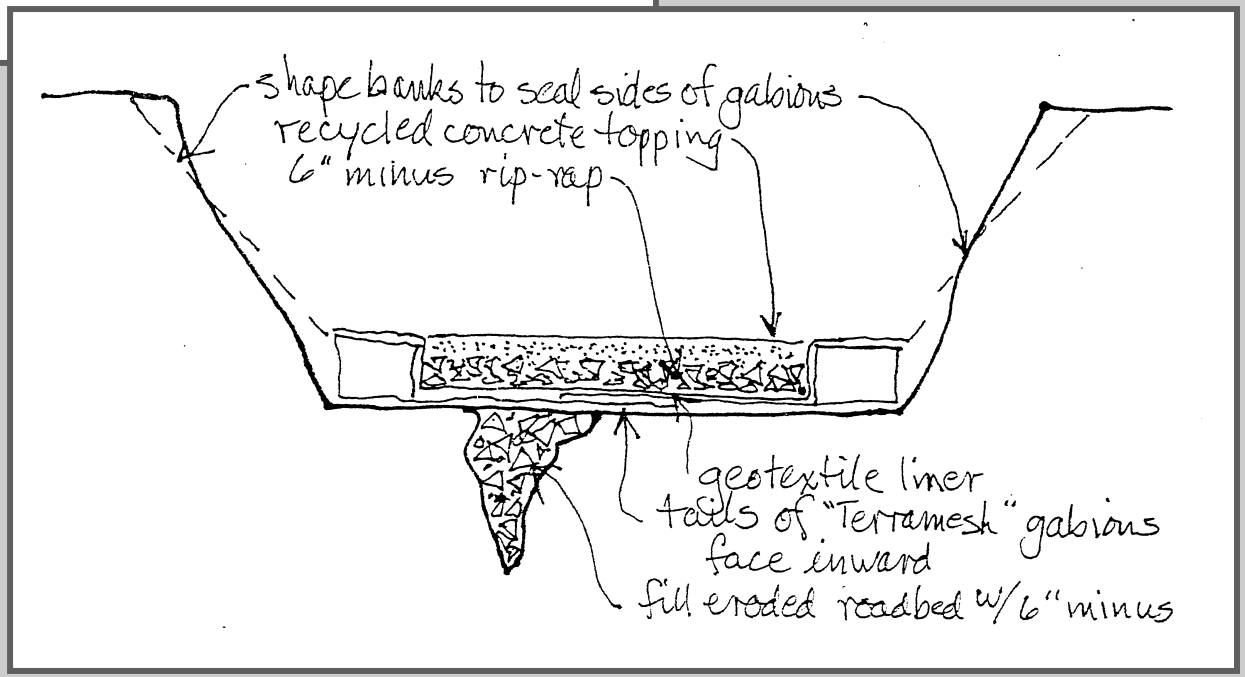
Original Road Surface

After Gabion


Range Road 10
Rehabilitation
(West Section)
After Floyd


the "Canyon" - profile
existing eroded roadbed

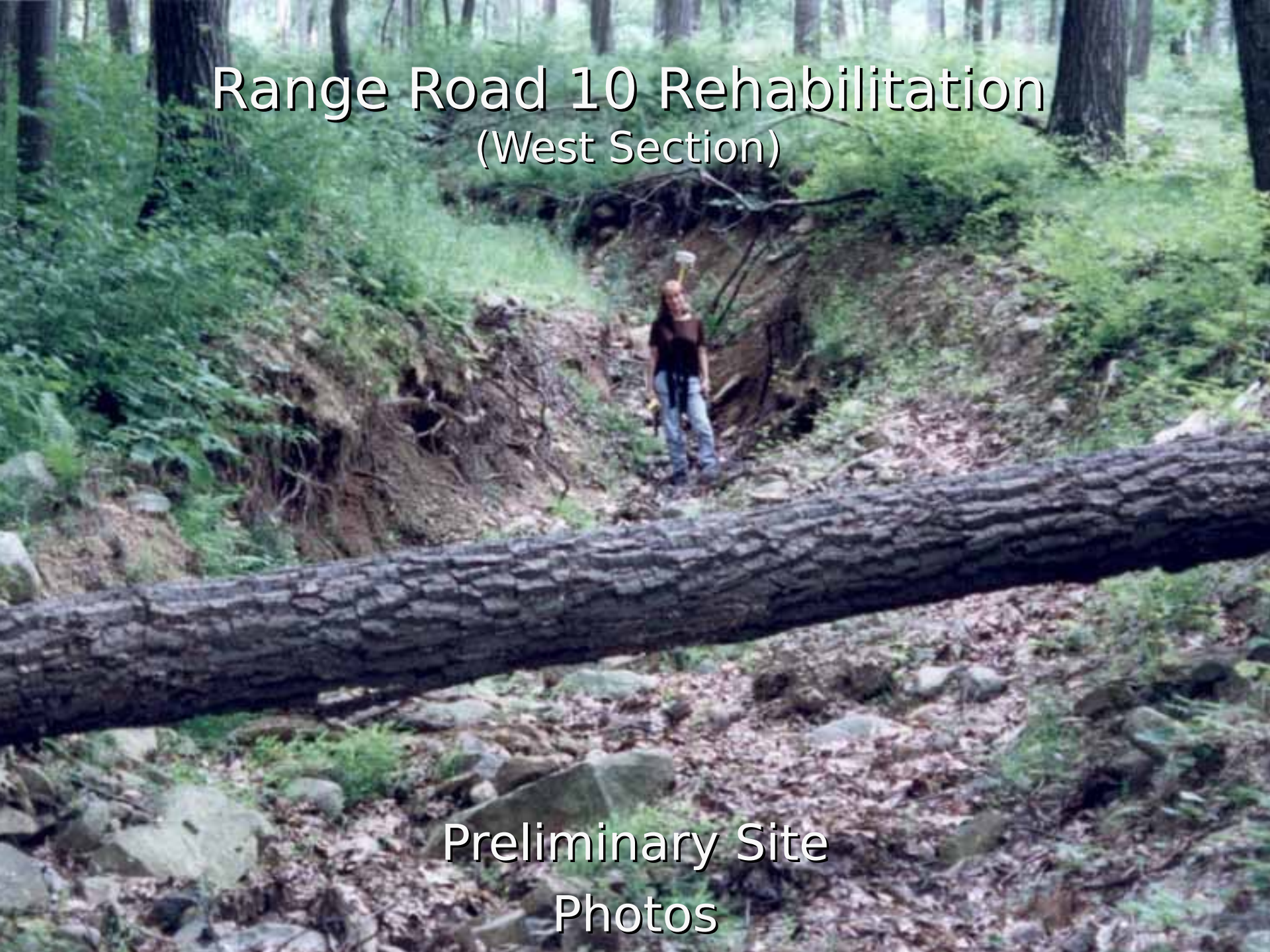
Repair Plan


shape banks to seal sides of gabions
recycled concrete topping
6" minus rip-rap
geotextile liner
tails of "Terramesh" gabions face inward
fill eroded roadbed w/ 6" minus

Work in Progress
August 2001

Range Road 10 Rehabilitation

(West Section)



Preliminary Site Photos

Work in Progress
August 2001

Steep Hills

11-23-58
WP-1
Lake Frederick Tank
Trails
1958

Who's the expert?

August 1997
September 2000

Final phase

Fall 2001

Key to Success

- ✓ COMMUNICATION
- ✓ COOPERATION
- ✓ PRIOR PLANNING